PERSPECTIVES 2020

ANNUAL REPORT

Celebrating 20 YEARS

NMSBA
Los Alamos National Laboratory
Sandia National Laboratories

$71.7M

Technical Assistance Provided by Labs

3,135

Businesses Assisted

9,710

Jobs Created and Retained

33

New Mexico Counties Supported

Cumulative numbers since the inception of NMSBA in 2000.

CONTENTS

As New Mexico looks to build a sustainable recovery, we know that partnerships are more important than ever. The collaborations nurtured by NMSBA are leading to more innovative technologies, a growing economy, and higher-paying jobs.

ALICIA J. KEYES
Cabinet Secretary
New Mexico Economic Development Department
State of New Mexico

New Mexico's small business community will drive economic recovery from the COVID-19 pandemic, creating jobs, income, and tax revenue. NMSBA's support helps New Mexico's small businesses to be more resilient and innovative, which will put New Mexico on a stronger footing for recovery.

STEPHANIE SCHARDIN CLARKE
Cabinet Secretary
New Mexico Taxation and Revenue Department
State of New Mexico

Dear Governor Lujan Grisham and New Mexico State Legislators,

We are pleased to present the 2020 Annual Report for the New Mexico Small Business Assistance (NMSBA) Program. This report highlights just a few of the hundreds of successful projects from 2020 and quantifies the overall performance of NMSBA, both for the past year and since its inception in 2000. The success stories in this report demonstrate the impact of NMSBA on a wide variety of small businesses from counties around the state.

In 2020, a total of 243 small New Mexico businesses participated in NMSBA. Thanks to the *Laboratory Partnership with Small Business Tax Credit Act*, the state of New Mexico, along with Los Alamos National Laboratory and Sandia National Laboratories, $4.49 million in national laboratory expertise and resources was invested to grow small businesses in 25 counties by overcoming technical challenges.

During the pandemic, NMSBA stepped up to fast-track relevant COVID-related projects, helping small businesses produce needed products such as PPE and hand sanitizer, and even refine vaccine encapsulation technology. We added a special section on these projects to this report.

Since 2020 marks the 20th anniversary of NMSBA, we also are including a page honoring companies that showed the greatest economic impact after receiving NMSBA assistance from each of the past 20 years.

Two projects received the *Honorable Speaker Ben Luján Award for Small Business Excellence* for demonstrating the greatest economic impact in 2020. After receiving NMSBA assistance, Emerging Technology Ventures received $200,000 from the U.S. Navy to demonstrate their technology which uses machine learning and drones to inspect aircraft for damage. The technology can also be used to inspect wind turbines. The Rebuilding Infrastructure Leveraged Project, after receiving assistance with evaluating their technology previously used to strengthen roads for a new application—capping abandoned uranium mines, has hired four additional full-time employees and anticipates over $15 million in gross revenue in 2021.

NMSBA has helped New Mexico's small businesses create jobs, increase revenues, decrease operating costs, and attract new funding opportunities. Since 2000, the two national laboratories have provided $71.7 million in technical assistance to 3,135 businesses, enabling 9,710 jobs to be created and retained across the state's 33 counties.

Your continued support of NMSBA, which promotes collaboration between our national laboratories and small business community, leads to economic development throughout our great state. Thank you!

Sincerely,

MARIANN JOHNSTON
Los Alamos National Laboratory

DAVID KISTIN
Sandia National Laboratories

PROGRAM INFORMATION

OVERVIEW

In 2000, the New Mexico Legislature created the *Laboratory Partnership with Small Business Tax Credit Act* for the purpose of "bringing the technology and expertise of the national laboratories to small businesses in New Mexico to promote economic development in the state, with an emphasis on rural areas." As a result, Sandia National Laboratories established the New Mexico Small Business Assistance (NMSBA) Program to provide technical support to small businesses throughout the state. Los Alamos National Laboratory began participating in NMSBA in 2007. Jointly, the labs are committed to solving small businesses' critical challenges with national laboratory expertise and resources; influencing New Mexico business development by building capacity, capabilities, and competencies; and acting as an advocate for small businesses through an entrepreneurial culture.

While each company utilizes NMSBA in a different way, all use it as a means to maintain or grow their business. NMSBA services are provided at no cost to participating small businesses in the form of lab staff hours valued at up to $40,000 per calendar year for businesses located in rural counties and $20,000 for businesses located in urban counties (Bernalillo and Santa Fe Counties). The total amount of assistance is capped at $2.4 million annually for each laboratory. NMSBA may not provide assistance that is available in the private sector, and no equipment or cash can be given to a participating company.

FUTURE DIRECTION

Facing the COVID-19 pandemic, New Mexico's companies used NMSBA to help them pivot into new product areas, enabling them to continue operations and, in some cases, grow during the economic downturn. NMSBA will continue to be a resource for existing businesses, helping them to increase efficiencies and find new opportunities, while also supporting start-ups. The Program helps the state focus on creating innovations in areas such as Aerospace and Defense, Biosciences, Cyber Security, Intelligent Manufacturing, and Sustainable and Green Energy.

In 2020, NMSBA marked its 20th year of operation as a business development tool. It continues to address technical challenges for New Mexico companies, increasing their resiliency as they become more effective at mitigating risk, adapting, and responding to significant and rapid change. As a result, these businesses continue to bring new products and services to the market, attract financing, and create meaningful jobs.

During 2020, NMSBA helped 243 small businesses across the state reach business goals, develop their products for commercial use, and increase profitability.

NMSBA makes a statewide impact by:

- Enabling New Mexico small businesses to access cutting-edge technology
- Increasing New Mexico small businesses' technical sophistication and capabilities
- Sharing knowledge and resources between laboratory personnel and small businesses to address issues and develop real-world applications

TYPES OF SMALL BUSINESS ASSISTANCE

Individual Projects

Individual NMSBA projects involve a single New Mexico for-profit small business. Projects address business-specific challenges that can be solved with national laboratory expertise and resources. Technical assistance challenges are wide ranging; however, the majority include testing, design consultation, and access to special equipment or facilities. Requests for individual projects are accepted year-round until funding is exhausted.

Leveraged Projects

Leveraged NMSBA projects allow a group of small businesses that share technical challenges to collectively request assistance. Leveraged projects address issues that are too large or complex to solve through an individual project. Proposals for projects are reviewed semi-annually by the NMSBA Advisory Council.

Contract Projects

Legislation allows NMSBA to contract with entities that have the capability to provide small business assistance services not available in the private sector. For the benefit of New Mexico's small businesses, NMSBA has contracts for specific services with the New Mexico Manufacturing Extension Partnership and the state's three research universities.

The New Mexico Manufacturing Extension Partnership provides training and assessments in the areas of quality and lean manufacturing principles.

The Arrowhead Center at New Mexico State University evaluates small business capabilities and technologies using subject matter experts throughout the university.

The New Mexico Tech Business and Technology Management Program interfaces with a variety of disciplines taught at the university to help accurately assess the current competitive position of small business technologies.

The University of New Mexico Management of Technology Program at the Anderson School of Management evaluates the commercial potential of small business technologies and identifies commercialization challenges and pathways.

The University of New Mexico School of Engineering addresses technical challenges faced by small businesses in computer science and chemical, biological, electrical, computer, civil, nuclear, and mechanical engineering.

KENDALL AUGUSTINE
President

SAN JUAN COUNTY

ANALYTICAL TECHNOLOGIES

Having technical data from no less than Sandia really puts customers at ease when they ask how well our product works. NMSBA enables small businesses to obtain technical data that, as far as I am concerned, is simply priceless.

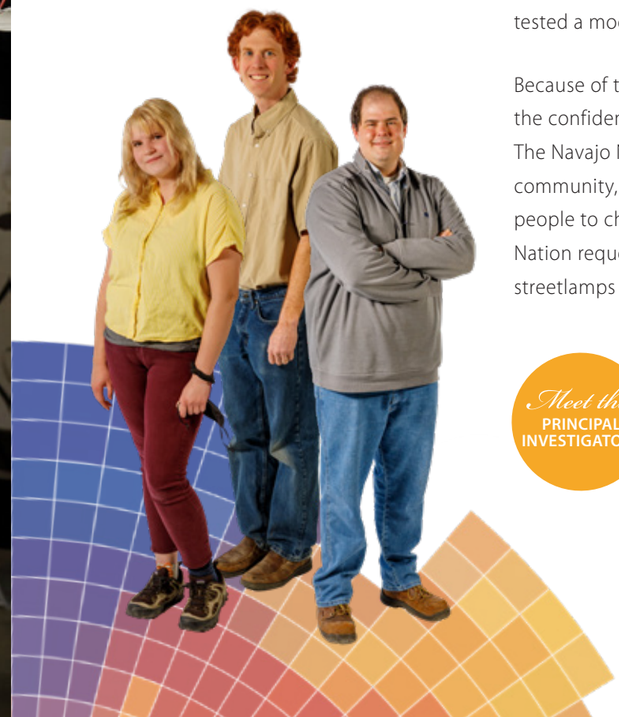
KENDALL AUGUSTINE
President
Analytical Technologies, Inc.

Analytical Technologies repairs circuit boards for the oil and gas industry. Recently, the small business expanded its services, offering solar adaptation, as well as solar generators and solar-maintained streetlights.

Kendall Augustine and his team harnessed their experience with solar power to develop a standalone charging station for portable personal electronic devices. These solar-powered charging stations are ideal in rural and out-of-the-way locations, which often do not have easy access to electrical power.

To help refine the charging station's design, Augustine reached out to NMSBA, which partnered him with Dan Wesolowski at Sandia National Laboratories. Wesolowski and his team worked to miniaturize, as much as possible, the size of the solar panel, enhance battery life, and bolster the functionality of the inverter and ancillary electronics, such as the charge-management system and maintenance indicators. The Sandia team also selected optimal hardware to ensure system ruggedness in often-challenging environments. Once the new design was completed, the team tested a model of the proposed system.

Because of this technical assistance, Analytical Technologies gained the confidence to proceed with building these charging stations. The Navajo Nation recently opened a river-walk pathway for the community, and the first charging station is now available for people to charge their electronics in this rural area. The Navajo Nation requested three more charging units, as well as two solar streetlamps for its river-walk pathway.



Meet the PRINCIPAL INVESTIGATORS

DAN WESOLOWSKI
Sandia National Laboratories

SYDNEY ROTH
Sandia Intern

DAVID SCHROCK
Sandia Technical Lead

OTERO COUNTY

EMERGING TECHNOLOGY VENTURES

Bottom line, our NMSBA project through Sandia has been so important to our technological growth—it has opened significant doors for us within the Department of Defense and has garnered interest from commercial airlines.

CLIFF HUDSON
CEO & CTO
Emerging Technology Ventures, Inc.

Emerging Technology Ventures provides autonomous, integrated sensing and predictive analysis for numerous environments, such as agriculture, infrastructure, and public safety. One new application area of interest for this business is green energy, namely wind turbines used to generate electricity.

Cliff Hudson and his team had an idea to use drones equipped with artificial intelligence to remotely analyze possible damage on wind turbines. However, the team's limited resources meant that they needed help developing machine learning-based damage detection and assessment engines.

To secure assistance, Hudson approached NMSBA, which linked him to Gabe Birch at Sandia National Laboratories. Birch and his team conducted three tasks. They analyzed the company-provided data set of blade damage to wind turbines, developed unsupervised learning anomaly-detection techniques, and refined the resulting algorithms using several hyperparameters to improve the software.

This technical assistance gave Emerging Technology Ventures the confidence to move forward with these innovative machine learning systems, which also have applications for inspecting military and commercial aircraft. Consequently, the company received $200,000 from the U.S. Navy's ADAPT (Accelerated Delivery and Acquisition of Prototype Technologies) program, which led to the development of a prototype demonstration. The company also added three additional software developers to its ranks. Commercial airlines have also expressed interest in using the company's services to assess damage to their aircraft.

Meet the PRINCIPAL INVESTIGATORS

GABE BIRCH
Sandia National Laboratories

Honorable Speaker Ben Luján AWARD for Small Business Excellence

CARTER TAYLOR
Production Operations Manager

AMANDA HUDSON
Digital Media Specialist

CLIFF HUDSON
CEO & CTO

ZIAD ARAFAT
Lead Software Developer

DANIEL CONTRERAS
Lead Systems Technician

YUN LI
CEO

DOÑA ANA COUNTY

The ability to validate and demonstrate our filtration technology using NMSBA via the Arrowhead Center is what has given me the confidence to move forward with mass-producing these organic filtration membranes soon.

YUN LI
CEO
Filtravate, Inc.

FILTRAVATE

Having licensed a patent-pending technology from New Mexico State University (NMSU), Filtravate went on to refine the technology, building new organic filtration membranes with controlled and tunable pore size, even pore distribution, and a functionalized surface. The improved functionality of these membranes makes them ideal for applications in bioprocessing and biopharmaceuticals.

Once the technology was mature enough, Yun Li realized she needed help with validating and demonstrating the technology, particularly its improved characteristics. Li made contact with NMSBA, which partnered her company with the Arrowhead Center at NMSU. The NMSU team included Kristin Morehead and subject matter experts Azeem Alvi and Skylar Scott.

The NMSU team addressed two key challenges. The team validated and demonstrated the feasibility of the technology with respect to functionality. They also replicated the filtration membranes in a lab setting to demonstrate functionality and reproducibility for mass production. The results of the work by the NMSU team helped the scientists at Filtravate better understand the functional components and parameters of their filtration membranes. By replicating the technology in a lab setting, the team demonstrated that it could be mass-produced.

The NMSBA project enables Filtravate to move forward with further testing and prototype product planning. The company is also hiring two team members and will start to map out and establish milestones to prepare for fundraising activities.

Meet the PRINCIPAL INVESTIGATORS

KRISTIN MOREHEAD
Arrowhead Center at New Mexico State University

BERNALILLO COUNTY

KANE ROBOTICS

The students at UNM gave us the strategies and tools to improve our business model and commercialization approach.

JOHN SPRUCE
CEO
Kane Robotics, Inc.

Kane Robotics is a recognized leader in designing and developing collaborative robotic systems for manufacturing and construction applications. However, John Spruce realized that the company could improve upon how it forecasted industry trends, implemented techniques to effectively enter commercial markets, and seamlessly took products from development to commercialization.

NMSBA connected Spruce with Professor Steve Walsh and his team of students at the University of New Mexico's Management of Technology (UNM-MOT) Program within the University of New Mexico Anderson School of Management.

Walsh and his cadre of students addressed the company's two principal concerns. First they looked at improving the company's ability to forecast its business trajectory and enter the marketplace. Next, they provided improved tools that enable the company to apply an integrated approach to technological market development and commercialization.

Armed with the answers to these and other business-driven questions, Kane Robotics now has the confidence to expand its business model, moving into markets such as aerospace and the defense industry. The company is growing, hiring two more individuals and receiving venture capital funding from Ingenuity Venture Fund, a seed-stage venture capital firm run by CNM Ingenuity that invests in New Mexico-based startups with the potential to lead in emerging industries.

Meet the PRINCIPAL INVESTIGATORS

STEVE WALSH
University of New Mexico

ABEE ALAZZWI
UNM Student

KARA CORRIDAN
UNM Student

PAUL EKEGREN
Principal Engineer

NATE BERG
Owner
Fit to Win Cycling

WISH KRISHNAMOORTHY
President & CEO
Qynergy Corp

MARK DERZON
Owner
Civil Defense Technologies

BERNALILLO AND SAN JUAN COUNTIES

We access NMSBA for two primary reasons: the national labs provide quantifiable information that we can use, and they provide high-quality guidance essential for the success of R&D companies like mine.

WISH KRISHNAMOORTHY
President & CEO
Qynergy Corporation

MICROGENERATOR LEVERAGED PROJECT

Founded in 2001, Qynergy is a technology development company focused on power and energy. Over the last two years Qynergy has been designing a novel microgenerator—a small power source to generate electricity.

However, Wish Krishnamoorthy and his team soon learned that the design had quite a few variables. What they needed was a model of the microgenenerator, so that they could test all the interrelationships, but the team lacked the resources to develop such a complicated and robust computational model.

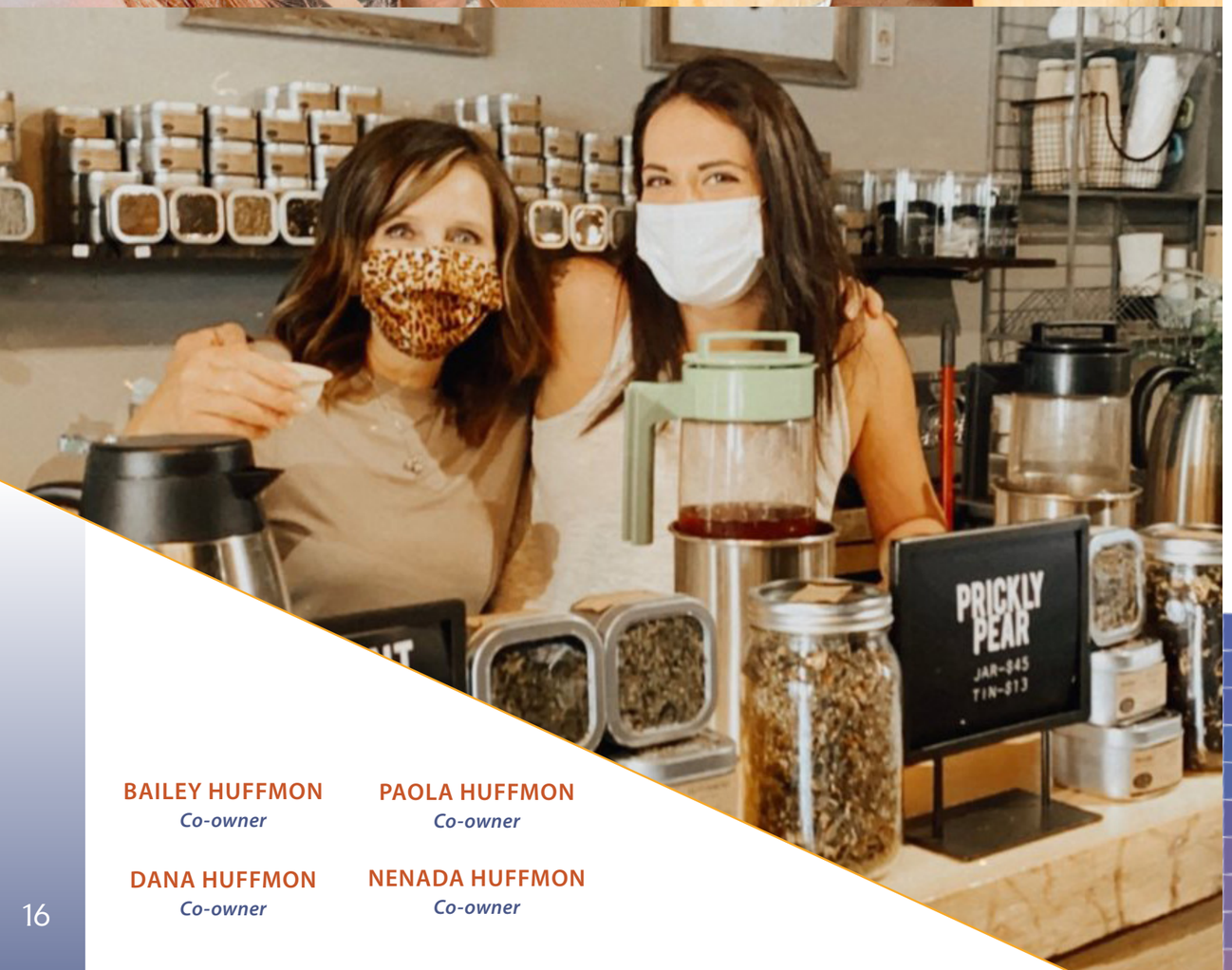
Krishnamoorthy reached out to NMSBA, which connected him with Eric Langlois at Sandia National Laboratories. Joining Qynergy in this leveraged project were New Mexico businesses Civil Defense Technologies, LLC, Fit to Win Cycling, and Merrion Oil & Gas.

Langlois and his team used advanced modeling applications to identify critical constituent materials, complex geometries, governing physics, and potential process technologies to achieve a fully functional device. The resulting model enables the companies to adjust and change the variables at will. The Sandia team also analyzed possible techniques to fabricate the microgenerator, such as microfabrication, 3D printing, and other nontraditional methods.

With this technical work in hand, Qynergy is moving forward with designing a prototype of their microgenerator. Qynergy also received $225,000 in funding from the U.S. Army, which in part enabled the business to retain one full-time staff member and one part-time staff member while also hiring a new electrical engineer.

Meet the PRINCIPAL INVESTIGATORS

ERIC LANGLOIS
Sandia National Laboratories



BAILEY HUFFMON
Co-owner

PAOLA HUFFMON
Co-owner

DANA HUFFMON
Co-owner

NENADA HUFFMON
Co-owner

BERNALILLO COUNTY

OLD BARREL TEA COMPANY

Before NMSBA connected us with New Mexico MEP, our manufacturing facility was barely making enough money to cover operating expenses. Now, by applying the principles we learned, we've grown exponentially and are in a position to expand into a larger warehouse and hire more employees.

PAOLA HUFFMON
Co-owner
Old Barrel Tea Company
Warehouse, LLC
dba Old Barrel Tea Company

Old Barrel Tea Company (OBTC) is a woman-owned small business with retail outlets in New Mexico, Colorado, and Arizona. These outlets relied on an external manufacturer to supply various tea blends. However, this manufacturer subsequently raised its prices by more than 50%.

Paola Huffmon of OBTC decided to create her own distinct tea blends and establish a new manufacturing facility to produce them rather than accepting the price hike. Product demand quickly escalated, with the manufacturing facility struggling to keep up with sales.

To address this problem, Huffmon approached NMSBA, which partnered her with Jennifer Sinsabaugh of the New Mexico Manufacturing Extension Partnership (New Mexico MEP). Sinsabaugh and her team trained Huffmon and her employees on lean manufacturing principles, redesigned the warehouse's layout to facilitate production and efficient product selection and delivery, and addressed methods to cultivate and streamline company growth, such as integrating better technology for inventory management, upgrading equipment, and initiating concepts such as pricing strategy and ways to manage future expansion.

Since implementing New Mexico MEP's recommendations, OBTC grew its revenue by more than 200%. Employees no longer spend time searching for items, with lead times for orders dropping from one week to one or two days, meaning staff can process twice as many orders daily. The company's growth to seven retail outlets plus online sales has enabled Huffmon to expand her product line into custom tea accessories, honey, essential oils, and custom spices.

Meet the PRINCIPAL INVESTIGATORS

JENNIFER SINSABAUGH
New Mexico Manufacturing Extension Partnership

SANDOVAL COUNTY

OMNIUS TECHNOLOGY SOLUTIONS

Thanks to NMSBA, the students at New Mexico Tech have truly added significant value to my company. I am not sure where we would be without this program.

TIARA GRANT
Founder & CEO
Omnius Technology Solutions, LLC

Founded in 2015, Omnius Technology Solutions developed an innovative touchless fall detection system known as Care Companion. Unlike comparable devices such as Life Alert, which require an individual to press a button after experiencing a fall, Care Companion is designed to detect falls via radio frequency sensors placed in a home and alert caregivers and emergency services if a fall occurs.

To help refine this innovative device, Tiara Grant reached out to NMSBA, which connected her with Frank Reinow and Seda Senay at the New Mexico Tech Business and Technology Management Program. The New Mexico Tech team assessed the feasibility of radio frequency sensors to collect sets of data points to monitor a room. The team successfully helped incorporate wireless sensors into the monitoring system to implement communication amongst devices.

As a result of this preliminary work, Omnius will continue to collaborate with New Mexico Tech to develop a workable prototype design. The objective is to enable Omnius to minimize the cost of installation and hardware for the system and make the system less invasive for the user. The touchless emergency monitoring system will help senior citizens and people with disabilities live more secure and independent lives.

Meet the PRINCIPAL INVESTIGATORS

FRANK REINOW
New Mexico Tech

TIARA GRANT
Founder & CEO

PROGRAM METRICS

VALUE OF PROGRAM ASSISTANCE IN 2020

In 2020, the state of New Mexico, along with Los Alamos National Laboratory and Sandia National Laboratories, invested **$4.49M** helping **243** small businesses in **25** counties to solve technical challenges. The following table contains the number of small businesses that received assistance from NMSBA, dollar value of the assistance for calendar year 2020, and cumulative value from 2000 to 2020.

	Los Alamos*	Sandia	Total
Number of Small Businesses Served			
2020	**110**	**133**	**243****
Rural	54	49	103**
Urban	56	84	140**
2000 - 2020	**1,092**	**2,400**	**3,135****
Rural	756	1,420	1,952**
Urban	336	980	1,183**
Value of Assistance Provided			
2020	**$2,121,970**	**$2,369,229**	**$4,491,198**
Rural	$1,319,207	$996,701	$2,315,908
Urban	$802,763	$1,372,528	$2,175,290
2000 - 2020	**$28,087,151**	**$43,606,869**	**$71,694,020**
Rural	$23,411,005	$30,793,025	$54,224,450
Urban	$4,676,146	$12,813,844	$17,469,570

**Los Alamos began participating in NMSBA in 2007. **Some companies are served by both laboratories.*
Note – In 2019, Santa Fe County moved from being a rural county to an urban county.

ACCOUNTABILITY & ECONOMIC IMPACT

NMSBA, enabled by the *Laboratory Partnership with Small Business Tax Credit Act*, is accountable to the state of New Mexico for its expenditures. NMSBA measures its economic impact through client surveys conducted by Research and Polling, Inc., and economic analysis provided by Robert Grassberger, PhD Economist.

ECONOMIC IMPACT FOR BUSINESSES FROM NMSBA PROJECTS	2000 - 2019*
Small Business Jobs Created and Retained	9,710
Average Reported Salary (2019)	$53,293
Increase in Revenue	$437,601,776
Decrease in Operating Costs	$228,379,825
Investment in NM Goods / Services	$158,629,990
New Funding / Financing Received	$189,121,835
Return on Investment (ROI)**	For every $1.00 of tax credit invested, the state receives a return of $1.54.

** Economic surveys are performed six months to one year after completion.*
*** ROI is based on salaries of jobs created and retained.*

BENEFITS TO NEW MEXICO SMALL BUSINESSES

New Mexico small businesses achieved positive results after receiving technical assistance from NMSBA. Feedback from companies that participated in the 2019 economic impact client survey revealed that:

58% DEVELOPED A NEW PRODUCT OR TECHNOLOGY

58% IMPROVED OVERALL OPERATIONS

64% EXPANDED OR IMPROVED A PRODUCT OR SERVICE

56% BECAME MORE COMPETITIVE IN THE MARKETPLACE

59% IMPROVED THE EXPERTISE OR CAPABILITIES OF EMPLOYEES

NMSBA identifies the areas of technical expertise that the national laboratories and their contractors utilized in NMSBA technical assistance projects, as well as the industry sector for the participating companies. The counties in which the small businesses are located are tracked to gain a better understanding of the reach of the program across the state.

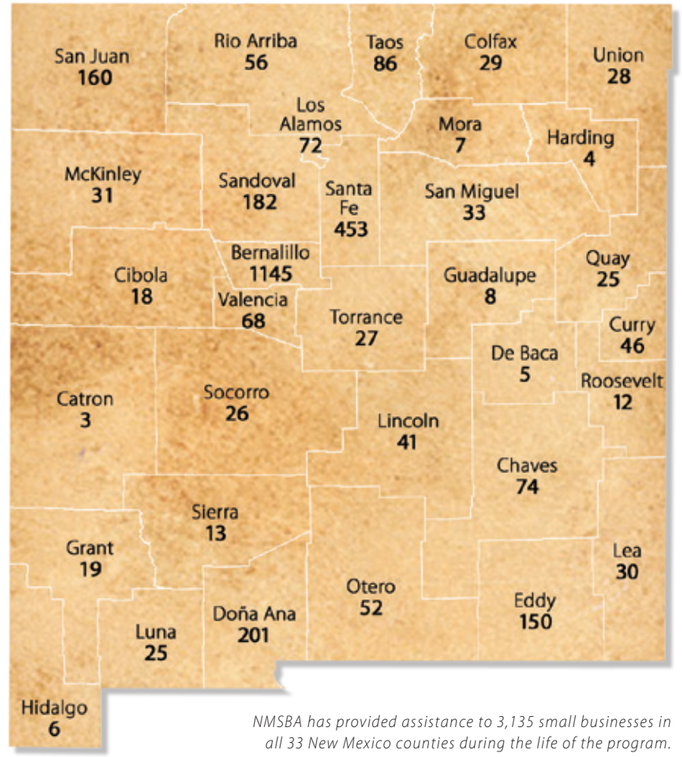
CAPABILITIES UTILIZED IN 2020

Engineering 22.8%
Manufacturing 22.0%
Business Development 10.0%
Advanced Modeling and Simulation 9.1%
Earth and Environmental Sciences 9.1%
Biological and Medical 6.6%
Chemistry 6.6%
Math and Computer Science 5.8%
Materials Science 5.0%
Micro-Nano Technology 1.7%
Energy 1.3%

INDUSTRIES OF SMALL BUSINESSES SERVED IN 2020

Manufacturing 47.1%
Professional, Scientific, and Technical Services 29.2%
Agriculture and Natural Resources 5.8%
Other Services (except Public Administration) 5.8%
Retail and Wholesale Trade 4.6%
Education Services and Health Care 2.9%
Oil & Gas, Utilities, and Mining 2.1%
Media and Hospitality 1.7%
Real Estate, Finance, Insurance, and Management Services 0.8%

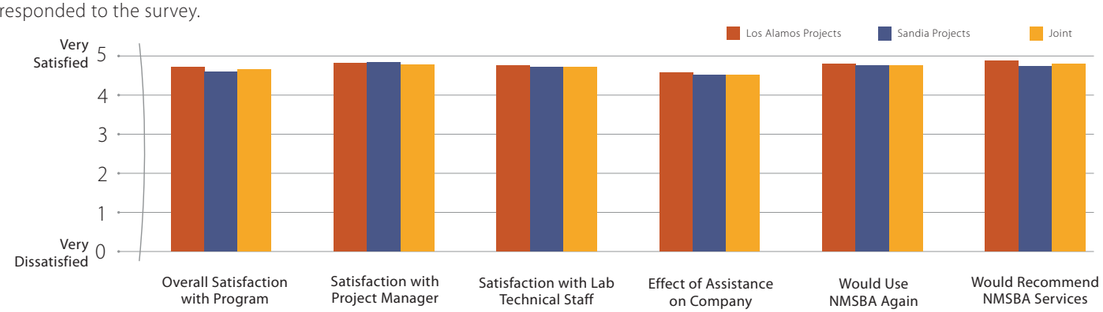
BUSINESSES ASSISTED BY COUNTY 2000-2020



NMSBA has provided assistance to 3,135 small businesses in all 33 New Mexico counties during the life of the program.

CUSTOMER SATISFACTION IN 2020

Each year, NMSBA surveys the participating businesses to learn about their satisfaction with the program. In 2020, 88% of the businesses responded to the survey.



Honorable Speaker Ben Luján AWARD for Small Business Excellence

BOB SHERWIN
CEO

BERNALILLO, SAN JUAN, AND SANTA FE COUNTIES

There are only two labs that can measure uranium containment, and Los Alamos is number one by far. Thanks to our collaborative work with Los Alamos through NMSBA, we now have a white paper as analytical proof that the LithTec™ U-capping system is an effective uranium containment solution.

BOB SHERWIN
CEO
Lithified Technologies US, LLC

REBUILDING INFRASTRUCTURE LEVERAGED PROJECT

Lithified Technologies US developed a soil technology known as LithTec™ that mimics lithification, a natural process that transforms soil into stone. This process provides optimal strength for road infrastructure enabling thoroughfares and highways to last much longer. A common saying in road construction is: "Roads may wear from the top, but they fail from the bottom." LithTec is specifically designed to counter such road failures.

Bob Sherwin became aware of a very serious problem involving 523 abandoned uranium mines (AUMs) on the Navajo Nation. None of over 200 water wells could be used due to the high uranium content, so water has to be trucked in from over 100 miles away, and the people living near these sites have high rates of cancer and birth defects. Sherwin wanted to know if LithTec could provide a better solution for capping the AUMs.

In conjunction with Havens Transport, LLC; Blanca Peak Indigenous Investments, LLC; and Blanca Holdings, LLC; Lithified Technologies approached NMSBA and was put in touch with Gilles Bussod at Los Alamos National Laboratory.

Bussod and his team evaluated LithTec's suitability for capping AUMs. Evaluations included assessing the strength and hydrochemical characteristics of the capping system, uranium sorption capacity, and overall suitability and sustainability. The evaluations concluded that the LithTec U-Capping system is an effective method for capping the AUMs and mitigating local contamination.

With these results in hand, Lithified Technologies US hired four additional full-time employees and plans to hire additional staff within the next five years to address the capping of AUMs and other LithTec applications. The company anticipates over $15 million in gross revenue in 2021.

Meet the PRINCIPAL INVESTIGATORS

GILLES YVES A. BUSSOD
Los Alamos National Laboratory

BERNALILLO COUNTY

I encourage all business owners to look into NMSBA—the results you will get will definitely enhance your business model and help turn your technical idea into a marketable product.

ROYAL SPRAGG
Vice President, Emerging Technologies
Roadrunner 3D, LLC

ROADRUNNER 3D

Roadrunner 3D specializes in three-dimensional printing of plastics, as well as techniques for rapid prototyping. Royal Spragg wanted to expand the company's capabilities into metal-based 3D printing using advanced alloys. However, Roadrunner 3D lacked the capabilities to fully analyze the pros of cons of such business expansion.

To get help with this problem, Spragg reached out to NMSBA, which connected him with Sal Rodriguez at Sandia National Laboratories. Rodriguez and his team reviewed the latest advances in metal-printing technologies, in particular their pros and cons, overall costs, risks, and capacities. The team also investigated so-called superalloys and RHEAs (refractory high-entropy alloys), which can retain structural integrity to at least 1,400°C (by comparison, steel alloys can take no more than 850°C).

Because of this initial collaboration, Roadrunner 3D and Sandia, along with Dynetics, Inc. and the University of New Mexico, received a three-year contract worth $1.5 million from the Department of Energy (DOE) through its Technical Commercialization Fund to develop advanced manufacturing capabilities for RHEAs. These collaborators signed a multipart Cooperative Research and Development Agreement (CRADA) to conduct this and other work.

In addition to the contract from the DOE, NASA has expressed interest in RHEA components for energy production, and Dynetics—a $1 billion revenue company—expressed interest in collaborating with Roadrunner 3D to pursue the development of RHEAs for energy, aerospace, and military components.

Meet the PRINCIPAL INVESTIGATORS

SAL RODRIGUEZ
Sandia National Laboratories

BRANDON JOHNSON
Lead Engineer

LUCAS PEIFER
Production Manager

NOAH HULL
Production Assistant

MCKINLEY COUNTY

TOSIDOH

A Navajo-, veteran-, and woman-owned small business, Tosidoh was founded to explore possible applications for a flowing water well at Tohatchi Hot Springs located in the Navajo Nation. Drilled in 1954 by an oil-exploration company, the well consists of a mix of meteoric and exotic connate waters.

With the support of the local community, Sam Woods began to assess these waters for possible use in generating geothermal energy. Lacking the resources to complete such a complex task, Woods reached out to NMSBA, which matched him with Maruti Kumar Mudunuru and later with Velimir (Monty) Vesselinov at Los Alamos National Laboratory.

The Los Alamos team used advanced machine learning technology (a form of artificial intelligence) to execute the following tasks: analyzing and processing data from various documents provided by Tosidoh; collecting, curating, and preprocessing site geochemical data; performing machine-learning data analyses using geological, geophysical, and geochemical datasets; and characterizing geothermal source and governing mechanisms that make the water hot.

The data from machine learning analysis revealed, among other things, two aquifers beneath the flowing well. The larger of the two is 37 square miles with a thickness of 300 feet located in the regional sandstone. This promising aquifer has the potential to support a greenhouse-based agricultural farm, domestic space heating, a commercial spa, and hydrogen production. Tosidoh is exploring the best water uses for sustainable applications in agricultural, solar energy, and hydrogen production while providing local employment and revenue opportunities for the community and the Navajo Nation.

We are fortunate—as a small business with limited resources—to have access to NMSBA, particularly its ability to secure the subject matter experts and advanced resources at the national laboratories. Such resources took our project to a much higher level that, in turn, will greatly benefit the Navajo people.

SAM WOODS
CEO
Tosidoh, LLC

Meet the PRINCIPAL INVESTIGATORS

VELIMIR (MONTY) VESSELINOV
Los Alamos National Laboratory

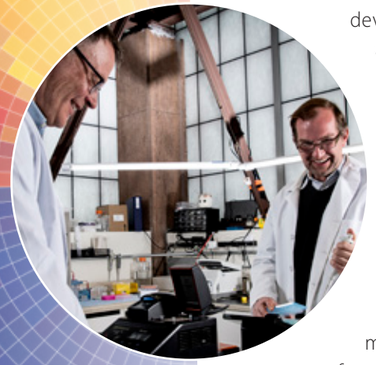
CHRIS DESCHENE
CLO

SAM WOODS
CEO

FAST-TRACKED COVID-19 PANDEMIC RESPONSE PROJECTS

When the pandemic struck, Los Alamos National Laboratory and Sandia National Laboratories decided that NMSBA could make a difference. Selected COVID-related projects were fast-tracked, starting just 24 hours after application instead of within two weeks.

VACCINE ENCAPSULATION LEVERAGED PROJECT



Santa Fe's NTx brought together NTxBio, Biuveris, and VM Technologies to create an RNA-based vaccine to counter the virus that causes COVID-19. Once researchers developed the vaccine, they needed to formulate it into nanoparticles and coat it with an appropriate lipid to stabilize, solubilize, and deliver it. To address this problem, the collaborators went to NMSBA, which connected them to Dale Huber at Sandia.

Huber and his team designed a microfluidic approach that concurrently makes the nanoparticles and coats them. The team uses microfluidic chips to enable hydrodynamic flow, which combines an aqueous solution of RNA with an ethanol solution of the lipid blend.

As a result of this technical assistance, NTxBio is expanding with a new manufacturing facility in Rio Rancho. The company received $20 million from the state of New Mexico for new equipment. In addition, NTxBio was awarded $5 million in Local Economic Development Act (LEDA) funding from the New Mexico Economic Development Department and $500,000 in LEDA funding from the city of Rio Rancho. The company plans to hire 12–15 additional employees during the next 6–10 months, with the goal of expanding to 116 employees in the next five years.

TEA-INFUSED HAND SANITIZER

Steve Chavez formed Self-Powered Organics, a small business based in Taos dedicated to producing plant-based products for human health and well-being. Collaborating with tea.o.graphy, a local hand-crafted tea company, Chavez formulated a tea-infused hand sanitizer that could destroy pathogens that cause skin and soft-tissue infections.

To test the efficacy of this new all-natural hand sanitizer Chavez approached NMSBA, which put him in contact with Anand Kumar at Los Alamos. Kumar and his team used standard microbiological techniques, including broth dilution and growth inhibition on agar plates, and cell culture infection to determine just how effective the hand sanitizer was against various pathogens, including surrogate strains of anthrax and COVID-19.

The analysis demonstrated the effectiveness of the product, so both companies have scaled up production and marketing. The work carried out by the Los Alamos team enabled both companies to continue operating profitably during the COVID-19 pandemic.

DISTILLERY HAND SANITIZER

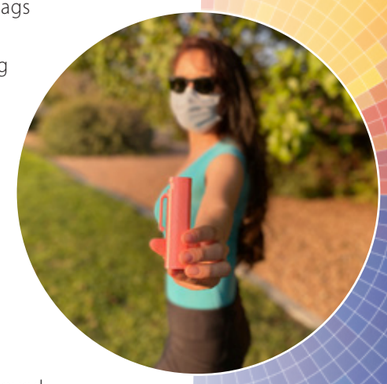
Known for its coffee wine, Wayward Sons Craft Distillery heeded the call when the federal government asked distilleries to produce hand sanitizer. The Santa Fe business quickly developed Elbow Bump to address the shortage of hand sanitizer in New Mexico and neighboring states.

Before the company could begin manufacturing Elbow Bump, it wanted to test the efficacy of the product. Wayward Sons reached out to NMSBA, which connected it with Jessica Kruichak at Sandia .

Kruichak and her team refined how to denature alcohol, a process involving adding chemicals to make the hand sanitizer unfit for human consumption. The team also helped the company test the product and confirm that it met standards set by the World Health Organization and the U.S. Food and Drug Administration (FDA).

With Sandia's results in hand, Wayward Sons placed Elbow Bump on the market. Their customers include the University of New Mexico, and Whole Foods, which sells the product in NM, CO, UT, KS, TX, and MO. Substantial donations have also been made to nonprofit organizations.

HAND SANITIZER DISPENSER



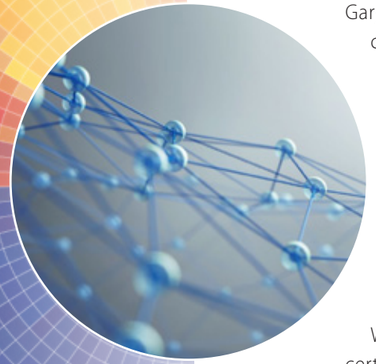
During the COVID-19 pandemic, keeping hands clean became an all-important concern. To help minimize people digging through their pockets or bags with dirty hands just to get some hand sanitizer, Albuquerque-based Kleverly created SaniClip, a trademarked wearable sanitizer dispensing device. This convenient push-to-spray dispenser offers users instant access to hand sanitizer any place, any time.

When SaniClip was little more than an idea, Kleverly CEO Kimberly Pflug reached out to NMSBA, which connected her to Alexandria Marchi at Los Alamos. Marchi and her team worked with the company to develop a design and select ideal materials to construct and mass produce the product.

Marchi's team used computer-aided design software to implement design improvements that eased manufacturing challenges and improved dispenser functionality. To mass produce the final product, Klevery chose injection molding after receiving advice on prototyping and manufacturing methods from the Los Alamos team.

This technical assistance enabled Kleverly to go from concept to production of a fully realized product which is now available at various retail locations, including Amazon.

REUSABLE PPE



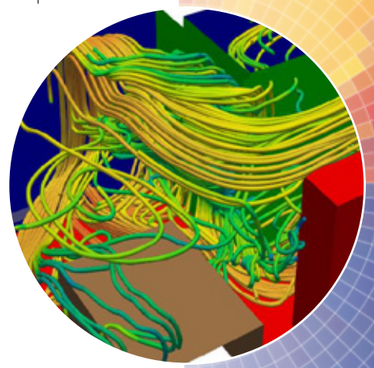
Green Theme Technologies (GTT) had a humble beginning with founder Gary Selwyn working in his kitchen, mixing and applying various chemistries to fabric on his ironing board. He was testing out his idea for a chemical finishing process for reusable personal protective equipment.

To evaluate the anti-pathogenic properties of fabrics treated with GTT's innovative process, the company reached out to NMSBA, which connected them with the Bioscience Division at Los Alamos. A team conducted a three-part experiment to test the properties of the treated fabrics and reported positive findings.

With these findings in hand, GTT moved forward in seeking certification from the FDA. The company has also begun working with the University of New Mexico's Health Science Center to test the fabrics against the virus responsible for COVID-19. GTT is currently raising funds to bolster their manufacturing efforts in New Mexico so that it can begin to produce this exciting new product.

COUNTERING CONTAMINATION PROJECTS

In 2020, NMSBA connected two small businesses with scientists at Sandia to help with methodologies designed to minimize contamination from pathogens.



Bright Holdings

Bright Holdings worked with Sandia Researchers Sal Rodriguez and Rick Garcia on a methodology to keep rooms sanitary by minimizing bio-aerosol particles in the air. Rodriguez used computational fluid dynamics (CFD) modeling to investigate typical patterns of airborne pathogens in a simulated hotel room with a bedroom and bathroom. The CFD simulations provided the company a methodology of how to mitigate the dispersal of aerosol-based pathogens, as well as where best to install mitigation devices, such as ultraviolet lights, supplemental fans, and filters.

High Water Mark

A Native American, woman-owned company, High Water Mark worked with Sandia's Emergency Management Organization on how to put on and take off personal protective equipment (PPE) while minimizing contamination in support of COVID-19 operations. Sandia's team worked with High Water Mark employees to demonstrate techniques previously proven in hazmat operations locally, in Algeria and Jordan, and at the Tonopah Test Range in Nevada. To date, such PPE training has been conducted with representatives from Cochiti and San Felipe Pueblos.

FACE MASK AND RESPIRATOR PROJECTS

In 2020, NMSBA established collaborations between three New Mexico small businesses and scientist Michael Omana and his team at Sandia to develop high-performance face masks and respirators in the midst of a personal protective equipment (PPE) shortage.

Marpac

Marpac wanted to manufacture respirators comparable to N95 respirators. The Sandia team used existing filtration test beds to characterize the filtration performance of the novel materials supplied by Marpac and then identified respective performance metrics. This enabled Marpac to produce N95-like respirators. The testing performed also replicated industry certification standards for N95 respirators.

Sew-EZ

Sew-EZ wanted to fabricate masks comparable to N95 respirators. The Sandia team used existing filtration test beds to quantify the aerosol collection efficiency of various novel materials. The testing performed also replicated industry certification standards for masks like the N95. Sew-EZ was able to make surgical masks that function like N95 masks.

Rescue Tactics and Training

Specialists in technical and tactical rescue, Rescue Tactics and Training worked with the Sandia team on testing the efficiency of masks intended for everyday use. The team used N95 testing guidelines to benchmark the performance of the various proposed mask materials. Additional performance metrics were also accounted for, such as directionality and flow rates. The resulting data enabled the company to select the best materials from which to manufacture masks.

LEVERAGED PROJECTS

Los Alamos National Laboratory and Sandia National Laboratories provide technical assistance for both individual and leveraged NMSBA projects. The following is a listing of this year's leveraged projects.

	PROJECT	DESCRIPTION	BUSINESS PARTICIPANTS	COUNTIES	FUNDING
Los Alamos	**2D Acoustic Flow Cells**	The Lab simulated acoustic fields within an acoustic flow cytometer using Finite Element Modeling in COMSOL Multiphysics software and developed models using the frequency-dependent behavior of a 2D cross-section of the flow cytometer, accounting for mechanical, electrical, and acoustic interactions between different cytometer components.	Andrew Shreve Consulting, LLC BennuBio, Inc. DarklingX, LLC	Bernalillo Los Alamos Santa Fe	$80,000
Los Alamos	**Brewery Carbon**	The Lab provided the businesses with an initial baseline of their current carbonation stream purity, researched the validity and impurity detection thresholds in sensory analysis tests to assess quality control of carbonated products, and made recommendations regarding carbonation process purity screening. Detailed water analysis panels were performed to determine any potential compounds that could affect the flavor of carbonated process streams.	Bathtub Row Brewing Co-op Bosque Brewing Closed Loop Sustainability, LLC Sierra Blanca Brewing Company	Bernalillo Los Alamos Sandoval Torrance	$63,400
Sandia	**Cheese Whey to Spirits**	The Labs assisted two New Mexico distilleries and a cheese manufacturer with consultation on the conversion of cheese whey to spirits.	Glencoe Distillery, LLC Hollow Spirits, LLC Tucumcari Mountain Cheese Factory	Bernalillo Lincoln Quay	$86,000
Sandia	**Earth Block Fire Resistance**	The Labs performed computational fire simulation and physical fire testing of an assembly of compressed earth blocks and an earth block adhesive as close to ASTM E119 and IFC standards as possible. Results of the tests were compared to fire and safety codes for dwellings.	Adherent Technologies, Inc. EarthTek, LC Neo Terra, LLC Paverde, LLC PG Enterprises, LLC	Bernalillo Sandoval	$101,700
Sandia	**Facial Recognition**	The Labs investigated the feasibility of facial recognition and reidentification and species identification for managing immunization frequency. The main focus of the work was exploring different methods for automatic reidentification of feral horses using deep learning.	505 IT Sandia Electro-Optics Corporation The Circuit Shop, Inc. Wildlife Protection Management, Inc.	Bernalillo Sandoval	$79,800
Sandia	**GPS Health for Beef Cattle**	The Labs consulted on a cattle health and location monitoring system. The consultation included designing for low-power consumption, optimal antennae design, low-power long range data communications, and high efficiency solar power capability.	JX Cattle Company, LLC Major Ranches Roper Solutions, Inc. fka Reap, LLC	Dona Ana Quay Socorro	$115,900
Sandia	**Microgenerator**	The Labs provided design consultation and modeling on a one-inch diameter micro-kinetic energy harvesting device. The goal was to identify materials, designs, and methods to achieve a functioning kinetic microgenerator.	Civil Defense Technologies, LLC Fit to Win Cycling Merrion Oil & Gas Qynergy Corporation	Bernalillo San Juan	$100,000
Sandia	**Nano-WaveGuide Meta-Surface**	The Labs assisted with the fabrication and testing of an array of nanosized structures which work in conjunction with a laser rod. The nanostructures' purpose is to guide laser wave energy in a prescribed design to improve laser performance and efficiency. Nanostructures were fabricated and tested.	InSync, Inc. Voss Scientific	Bernalillo	$40,000
Sandia	**Novel Plasma System**	The Labs evaluated the mechanical and electrical engineering designs of four supporting capacitor banks and their magnetic field coils which are an integral part of a plasma injector that will be used in a compact plasma formation and compression concept. To help define the initial electrical and mechanical engineering design of the banks the companies provided preliminary plasma simulation data. Once this evaluation was completed, an introductory, top-level design adaptation effort was undertaken to examine the existing capacitor bank designs to determine how they could be modified to conceivably work with a reportedly more efficient plasma formation scheme than the reversed field theta pinch. This alternate formation scheme has initially been investigated for plasma thruster (electric propulsion) applications and is referred to in the literature as a Pulsed Inductive Thruster.	Compact Fusion Systems, Inc. Woodruff Scientific, Inc.	Santa Fe	$36,000

LEVERAGED PROJECTS CONTINUED

	PROJECT	DESCRIPTION	BUSINESS PARTICIPANTS	COUNTIES	FUNDING
Sandia	**PainScan**	The Labs performed detailed testing of capacitive pressure sensors, and developed methods to integrate them with appropriate electronics into a wearable glove interface. The Labs also provided development input on other elements of the Just Health Care PainScan system.	Ingenuity Software Labs Just Health Care, LLC Lynn Technical Services, LLC	Bernalillo	$59,700
Los Alamos	**Rebuilding Infrastructure**	The Lab assisted in the testing, refinement, and evaluation of a novel multi-layered aggregate system to cap abandoned uranium mines (AUMs) for contaminant remediation purposes. The system consists of a hard pavement surface layer (LithTec™), underlain by a U-cap-base layer consisting of mixed, locally sourced soil and rock aggregate with U-sorption properties. This work was accomplished through the following tasks: (1) AUM U-Cap multilayer design evaluation, (2) LithTec U-Cap mechanical property measurements, (3) LithTec U-Cap uranium sorption tests, and (4) hydrochemical property measurements.	Blanca Peak Holdings, LLC Blanca Peak Indigenous Investments, LLC Havens Transport, LLC Lithified Technologies US, LLC Lithified Technology Group, LLC	Bernalillo San Juan Santa Fe	$109,100
Los Alamos	**REE Magnet Recycling**	The Lab tested its proprietary K-B Process on rare earth element permanent magnet alloys through the following tasks: (1) Testing the removal of Neodymium, Dysprosium, Samarium from custom REE metal mixtures; (2) Analyzing the recovery of Neodymium and Dysprosium from authentic Neodymium-Iron-Boron magnets as well as Samarium from authentic Samarium-Cobalt magnets; and (3) Testing and analyzing the recovery of REE metals from used magnet feedstocks in order to assist the businesses.	Bright Path Laboratories, Inc. ErgoTech Molten Salt Solutions, Inc. fka UCL3, Inc. Tafoya and Brainerd Partners	Bernalillo Los Alamos Sandoval Santa Fe	$115,700
Sandia	**Safety Analysis of Rocket**	The Labs delivered physics simulations of the Kilopower reactor in 14 high impact accident scenarios.	Agricultural Minerals Company, LLC Little Prairie Services Surreal Studios	Santa Fe Torrance	$80,000

	PROJECT	DESCRIPTION	BUSINESS PARTICIPANTS	COUNTIES	FUNDING
Sandia	**Short-Pulse interrogation**	The Labs characterized and modelled an ion source for use in portable radiation detectors for commercial applications. Benchtop level ion source testing was performed and compared to in-house Sandia multiphysics plasma simulation code.	Aquila, Inc. Next State Systems Taycar Enterprises, Inc. TEAM Technologies, Inc. Toltec Enterprises, Inc.	Bernalillo	$99,800
Los Alamos	**Solidified Remains**	The Lab assisted the businesses in determining the environmental impact of the Solidified Remains product. The laboratory performed batch experiments to determine the extent to which both ash and crushed stones are leached into solutions of varying pH. Field experiments were initiated to compare the effects of stone versus traditional ash in outdoor areas at the Lab. Greenhouse experiments were set up to determine the effects of both the ash and stone on plant health.	Chronicle Cremation Designs, LLC dba Parting Stone CSS Productions Molecule Design Rachel Donner Ceramics Santa Fe IP, LLC Trident Studios	Bernalillo Santa Fe	$118,900
Sandia	**Vaccine Encapsulation**	NTx has a proprietary RNA-based COVID-19 vaccine candidate. To develop and deploy an RNA-based vaccine and therapeutic, it must be formulated to deliver to tissue cells. One option is to formulate it into lipid nanoparticles (LNP) to stabilize, solubilize, and deliver it. In order to scale current manufacturing processes and deliver sufficient doses, the LNP formulation has to handle 25 liters of RNA solution a day (producing up to five million doses per day). The Labs tested, as time and budget allowed, a microfluidic approach to develop a process for LNP formulation in a single process utilizing materials supplied by NTx.	Biuveris, Inc. NTx, Inc. NTxBio, Inc. VM Technology, Inc.	Santa Fe	$79,900
Los Alamos	**Vibration Testing**	The Lab began to assist the businesses with the testing of the art transport crate by beginning coordination with the appropriate testing facilities. However, due to the COVID-19 pandemic, work on the project was halted.	Business Consulting Georgia O'Keeffe Museum Innovations (GOKMI) Ken's Machine & Tool Mountain Moving & Storage, Inc. Private Label Select, Ltd. Company	Bernalillo Santa Fe Taos	$55,600

INDIVIDUAL PROJECTS

BERNALILLO

A. D. Nelson, LLC
Acme Worldwide Enterprises, Inc.
Advanced Optical Technologies, Inc.
Agilvax, Inc.
Ale Republic, LLC
AWS Bio-Pharma Technologies
Bright Holdings, LLC
Build With Robots, Inc.
C Johnson Development Company, LLC
Century Sign Builders
Class Bucks, LLC
CO2ReSCUE
Cornivore Popcorn Company
Cotta Snacks, LLC
CSolpower, LLC
Daedalus Technology Group, LLC
Dark Sea Industries, LLC
Dynamic Systems & Research
Edge Endo, LLC
Electric Playhouse
Elvis Chemcial Manufacturing
Envi Pure Finishes, LLC
dba PureColor, Inc.
FreeRange Financial
Garcia Enterprises
dba The Original Garcia's Kitchen
Gelatina di Vino
Gilz, LLC
Gold Standard Radiation Detection, Inc.
Golden Rule Holdings
dba TCS Industries, Inc.
Hnzhuu Bath & Body, LLC
Janine Mahon, LLC
Kaehr Coatings Corporation
Kane Robotics, Inc.
Kleverly, Inc.
Marpac, Inc.
New Mexico Sabor, LLC
Nob Hill Therapeutics
NooshHub, Inc.
fka NooshTube, Inc.
OBTC Warehouse, LLC
dba Old Barrel Tea Company - ABQ
OCO Biomedical
One Infinite Division, Inc.
OptiSource, LLC
Osazda Energy, LLC
Paper Plane Branding and Marketing
Parental Values, LLC
Passages International, Inc.
PHP Investments, LLC
dba PHP 4 Solutions
Print Express, LLC
Radiation Detection Solutions, LLC (RDS)
RC Technologies, LLC
ReGen Technology, LLC
fka SoilCo, LLC
Resonant Body
RingIR, Inc.
Roadrunner 3D, LLC
Sandia Biotech
Santa Fe Flooring, LLC
dba OGB Architectural Millwork
Sentient Sensors, LLC
Sew EZ
Sierra Peaks Corporation
Submaterial, LLC
S-WASP, LLC
T-Borg, Inc.
TIPT, Inc.
VanDevender Enterprises, LLC
Westwind Computer Products, Inc.
World Exhibition Center, LLC

CHAVES

Red Mountain Arsenal, LLC

CIBOLA

Chavez Plumbing and Supply, LLP

COLFAX

Angel Fire Resort Operations
Angel Fire Timeshares, LLC

CURRY

Lynnea Allen
dba Abarca Meats
Renovar Energy

DOÑA ANA

Filtravate, Inc.
La Primera Tortilla Factory
My Tia's Crunchy Granola
Ol' Gringo Chile Company
Samson Equipment, Inc.
Utopia Valley, LLC
White Sands Research and Developers, LLC
Worthington Farm, LLC

GRANT

Andy Gomez
dba G-Boyz Beef Jerky

HARDING

Ute Creek Cattle Company

HIDALGO

Lightning Dock Geothermal, HI-01, LLC

LINCOLN

Old Barrel Tea Company Cloudcroft, LLC

LOS ALAMOS

Biodidact, The Community Lab
BioStim, Inc.
HyPwr, LLC
ISM Systems
PAC Technologies
fka Pressure Analysis Company
RockSmith Precision Machining, Inc.
Southwest Accounting Pros, LLC
Tibbar Plasma Technologies, Inc.
Trenza, Inc.

LUNA

Luna Precision Welding, LLC

MCKINLEY

Navajo Spirit Southwestern Wear
Rhino Health, Inc.
Tosidoh, LLC

OTERO

A & M Meat Processing, LLC
Emerging Technology Ventures, Inc.
High Rolls ClayWorks
NowClean, LLC

RIO ARRIBA

Black Mesa Winery
Freshies of New Mexico, LLC
Manzanar Los Silvestres
Velarde Vines

SAN JUAN

ABC Canvas, Inc.
Alpha Bioscience Company, LP
Analytical Technologies, Inc.
Aztec Rogue Foods, LLC
Breathable Moments Travel, LLC
DragonFire Technologies, LLC
Hauling Accessories, LLC
Henry Production, Inc. (HPI)
Industrial Cooling Exchanger (ICE)
J & T Distributing
Jack's Plastic Welding, Inc.
Largo Tank and Equipment
Linear Motion 120, LLC
Teresa Lackey
dba Valley Mills
WSI Enterprise

SAN MIGUEL

Energy Concepts Corporation
Global Conservation Assistance
Montibon Provenance International, Inc.
Old Wood, LLC
San Miguel Sun Dwellings
Seed + Stone, LLC

SANDOVAL

Data Center Transitions, Inc.
DHF Technical Products, LLC
Form Cove Manufacturing Company, Inc.
Green Theme Technologies, LLC
High Water Mark, LLC
Ideum, Inc.
Insight Lighting
Mezel Mods
Omnius Technology Solutions, LLC
Painting Bots, LLC
Paulita's New Mexico, LLC
Rescue Tactics and Training, LLC
Santa Fe Quantum Solutions
Scollon Electric / Scollon Metal Roofing
Vamco, LLC

SANTA FE

Aerblock Enterprises, LLC
Avisa Pharma, Inc.
Chili Line Brewing Company
Divine Beauty
Excedere, LLC
Fault Tolerant Technology
Fidelity EHR
Gonzo Farms, LLC
Gordo, LLC
Hoop Portal, LLC
iBeam Materials, Inc.
Leaf & Hive, LLC
Legacy Sustainable Development
dba Transcendence, LLC
Lunar Rabbit, LLC
Monarch Waste Technologies
Patrick's Fine Foods
Reverse Engineer Lab, LLC
S. Silber & Associates, LLC
Santa Fe Energy Technologies, LLC
Sceery Outdoors, LLC
Siddha Labs
Simtable
Solstar Space Company
STAR Cryoelectronics, LLC
Verde Food Company
dba New Mexico Fresh Food
Wayward Sons, LLC
Wound Solutions, LLC

SIERRA

DankArt, Inc.
St. Cloud Mining Company, Inc.

SOCORRO

Space Sciences Corporation

TAOS

Aspena, LLC
Diamond Sow Garden
Link Summers, LLC
Self-Powered Organics, LLC

TORRANCE

Falcon Industries
dba ERGO Grips

VALENCIA

Concrete Impressions New Mexico, LLC
Mid-Valley Doors
dba Toby's Doors, Inc.
Sisneros Bros. Mfg., LLC

CELEBRATING 20 YEARS OF NMSBA

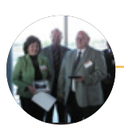
Recognizing the companies that showed the greatest economic impact each year after receiving NMSBA assistance.

2001
Carlsbad Irrigation District Leveraged Project

2002
TEAM Technologies

2003
Fast Ditch

2004
PESCO

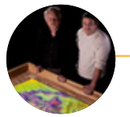


2005
Queston Construction

2006
Fabtec Solutions

2007
Armed Response Team

2008
Creative Consultants



2009
Simtable

2010
Animal Haven Veterinary Clinic of Socorro

2011
SAVSU Technologies

2012
Wave Energy Leveraged Project

2013
Data Center Transitions

2014
Taos Mountain Energy Foods

2015
Smart Battery Manager Leveraged Project

Tibbar Plasma Technologies

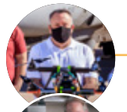
2016
Old Wood

2017
Safe Quantum Dot Materials for Solid-State Lighting Leveraged Project

2018
Rhino Health

2019
Guardian Sensors

Navajo Spirit Southwestern Wear



2020
Emerging Technology Ventures

Rebuilding Infrastructure Leveraged Project

ACKNOWLEDGEMENTS

- Thank you to all the small businesses for participating in NMSBA and creating jobs and economic wealth for New Mexicans.
- Thank you to all the Los Alamos and Sandia national laboratories' principal investigators who applied their expertise and knowledge to help New Mexico small businesses solve their technical challenges.
- Thank you to the Office of the Governor, New Mexico Legislature, New Mexico Economic Development Department, and New Mexico Department of Taxation and Revenue for their continued support of the *Laboratory Partnership with Small Business Tax Credit Act* and NMSBA.
- Thank you to the Advisory Council for their leadership, advice, and guidance in support of NMSBA.

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Sandia National Laboratories

VALERIE SALIM-MEZA
Sandia National Laboratories

DAVID TRUJILLO
Los Alamos National Laboratory

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Sandia National Laboratories

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New Mexico Manufacturing Extension Partnership
Los Alamos National Laboratory

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The Perspectives 2020 Annual Report contains some photography taken prior to the COVID-19 pandemic. Photos taken more recently followed social distancing and other health and safety guidelines.

NMSBA
Los Alamos National Laboratory
Sandia National Laboratories

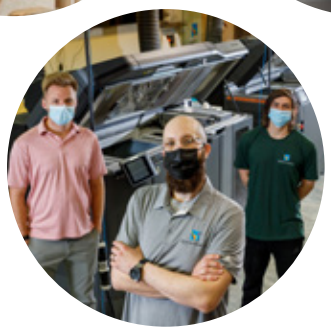
Solving New Mexico's Small Business Challenges

NMSBAPROGRAM.ORG







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